REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Entry of the amendments is proper under 37 CFR §1.116, because the amendments place the application in condition for allowance and do not raise any new issue requiring further search and/or consideration. The amendments are necessary and were not earlier presented, because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Claims 1, 3, 4, 6, 7, 9-13, 15 and 16 are pending in this application

Claim 1 has been amended to delete "carboxylic acid" as a polar organic group.

I. Claim Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1, 3, 4, 6, 7, 9-13, 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Velzel (WO 02/20471). As applied to the amended claims, Applicants respectfully traverse the rejection.

Claim 1 recites a method of improving the crushing strength, impact resistance and compressibility of urea granules, comprising adding to molten urea, **both a polyvinyl compound, and an organic compound having 1-10 carbon atoms and 1-10 polar organic groups**, wherein the polar organic groups are selected from hydroxyl, amine and/or amide groups, and the amount of the organic compound in total is at most 1 wt%, based on the amount of molten urea. Accordingly, in the method of claim 1, both (i) a polyvinyl compound, and (ii) an organic compound having (a) 1-10 carbon atoms **and** (b) 1-10 polar organic groups are added to molten urea.

In the claimed invention, the polyvinyl compound can be of the general formula $(CHX\text{-}CHY)_n$ where n = 4-10,000 and X and Y independently of one another are selected from the group consisting of a hydrogen atom and a polar organic group (claim 7); and the organic compound can be pentaerythritol (claim 4).

On the other hand, Velzel teaches a method "characterized in that a urea melt is admixed with an aqueous solution of **a urea additive**, comprising **a polyvinyl compound of the general formula $(CHX\text{-}CHY)_n$**" (see page 2, lines 31-35) (emphasis added). Accordingly, the reference

teaches that a urea additive comprising a polyvinyl compound is added to a urea additive, rather than adding **both** a polyvinyl compound **and an organic compound** to a urea melt, as in claim 1 of the present application.

Furthermore, the reference teaches:

> Preferably, the **additive used according to the invention is a polyvinyl compound of the general formula $(CHX\text{-}CHY)_n$**, where n is a number from 4 to 10 000, and **X and Y independently of one another represent a hydrogen atom or a polar organic group**, such as carboxylic acid radical, ester radical, hydroxyl radical, amine radical, amide radical, more preferably the formula $(CH_2\text{-}CHY)_n$, where n = 4-10 000, and **Y** = a hydrogen atom or **a polar organic group**, such as a carboxylic acid radical, ester radical, hydroxyl radical, amine radical, amide radical, more preferably the formula $(CH_2\text{-}CHY)_n$, where n = 4-10 000, and **Y** = a mixture of an acetate ester radical and hydroxyl group, preferably 70% or more hydroxyl group, more preferably the formula $(CH_2\text{-}CHY)_n$, where n = 4-10 000, and Y = a mixture of an acetate ester radical and hydroxyl group, preferably more than 95% hydroxyl group. (Emphasis added) (see page 3, lines 18-35).

Accordingly, the reference teaches a urea additive comprising a polyvinyl compound of the formula $(CHX\text{-}CHY)_n$, wherein Y is a polar organic group. This means that the polyvinyl compound has a polar organic group. On the other hand, in claim 1 of the present application, both (i) a polyvinyl compound, and (ii) an organic compound having (a) 1-10 carbon atoms **and** (b) 1-10 polar organic groups are added to molten urea.

In the Advisory Action of September 11, 2009, the Examiner asserts that Table 5 of the reference discloses an admixture of polyvinyl alcohol (a polyvinyl compound) and calcium acetate together in an aqueous medium. In addition, in the Advisory Action, the Examiner asserts that calcium acetate has 1-10 carbon atoms and a carboxylic acid group (see page 2, lines 10-17). Furthermore, in the outstanding Office Action, the Examiner asserts that calcium acetate still meets the claims regardless of the change in pH. Accordingly, the Examiner's main argument for the rejection of claim 1 appears to be based upon the inclusion of "carboxylic acid" as one of the polar organic groups.

In order to further distinguish the presently claimed invention over the reference, claim 1 has been amended to delete "carboxylic acid" as a polar organic group.

Thus, in Velzel, a polyvinyl compound is added to the urea melt, whereas in the claimed invention, a small organic compound (having 1-10 carbons and 1-10 polar organic groups) is added **in addition to** the polyvinyl compound, **wherein the polar organic groups are selected**

from hydroxyl, amine and/or amide groups. This clearly distinguishes the claimed invention over the reference.

Except for the single example of calcium acetate referred to by the Examiner, Velzel uses salts of mineral acids and does not use small organic compounds having 1-10 carbons and 1-10 polar organic groups, **wherein the polar organic groups are selected from hydroxyl, amine and/or amide groups.**

Therefore, the reference fails to disclose or suggest "adding to molten urea, both a polyvinyl compound, and an organic compound having 1-10 carbon atoms and 1-10 polar organic groups, wherein the polar organic groups are selected from hydroxyl, amine and/or amide groups", as recited in claim 1.

Moreover, Applicants take the position that when the organic compound is pentaerythritol (claim 4), the examples in the present specification show that the claimed method has the best results. However, the claimed method should not be restricted to pentaerythritol as the organic acid, because this would unfairly limit the claimed method.

In view of the foregoing, claim 1 would not have been obvious over the reference.

Claims 3, 4, 6, 7, 9-13, 15 and 16 depend directly or indirectly from claim 1, and thus also would not have been obvious over the reference.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied reference.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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